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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,219	04/26/2001	Lyle Theisen	P04822US0	8367

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EXAMINER

YU, GINA C

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 03/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/843,219

Applicant(s)

THEISEN, LYLE

Examiner

Gina C. Yu

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

P r i d f r R p l y

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

- 4) ☒ Claim(s) 21-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 16, 2002 has been entered. Claims 21-32 are pending.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 21, 22, 24-28, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable Small et al. (US 5591255) ("Small) in view of Simon (6080415).

Small teaches a method of formulating thermochromic ink or nail lacquer composition containing thermochromic encapsulated dyes. See abstract; col. 12, lines 10 – 25. The reference teaches that it is well known in the art to produce thermochromic encapsulated dyes by combining water, dye, oil, and melamine formaldehyde, which results in capsules containing oil and dyes with melamine formaldehyde forming the capsule membrane wall. See col. 1, lines 35 – 47. See instant claims 21, 22, and 24. Small also teaches that the acid used in the thermochromic formulation is neutral pH (6.2-7.5) for increased shelf life. See col. 4, lines 4 – 6; col. 6, line 1 – 34. See instant claim 32. The method of heating

thermochromic encapsulated dyes is also taught. See col. 9, lines 20 – 40; instant claims 25. The reference also teaches to add the capsules to lacquer or varnish, and other ingredients to enhance the product and colorants, such as surfactant, UV inhibitors. See col. 2, lines 7 – 30; col. 12, lines 10 - 25. See instant claims 26, 31.

While Small does not specifically teach the amount of thermochromic dyes in a nail lacquer composition, the reference provides that “thousands of colors and shades can be realized” by using different pigments in different ratios. See col. 12, lines 10-16.

While Small teaches that both thermochromic and photochromic encapsulated dyes are well known, the reference fails to specifically disclose using photochromic dyes in the lacquer composition. See col. 1, lines 21 – 22.

Simon discloses photochromic cosmetic make-up products such as nail varnish, which renders reversible coloring effect in response to light. See abstract; col. 1, line 7 – col. 2, line 5. See Example on col. 13. The reference specifically teaches photochromic coloring agents such as spiroxazines, naphopyran, or the derivatives thereof, which are also benzene derivatives. See col. 3, line 56 – col. 4, line 6. See instant claims 24 and 28. The example employs 2 % by weight of photochromic dyes, and claims that the colorant may be used in the amount 0.01-98%. See claim 8.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition in Small by adding the photochromic material as motivated by Simon because of the expectation of successfully producing a nail lacquer composition having both thermochromic and

photochromic properties. The condition of the stability is viewed as a property of the prior arts or the obvious variation thereof.

Generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. See MPEP § 2144.05. Since the general conditions of the instant claims are disclosed in Small and Simon, examiner views that one having ordinary skill in the art would have discovered the optimum or workable ranges by routine experimentation. Given the general teaching in Small that various shades can be made by using different ratio of pigments, the routineer would have discovered optimum amount of the thermochromic and/or photochromic dyes depending on the desires tone or shade.

2. Claims 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Small and Simon as applied to claims 21, 22, 24-28, and 30-32 as above, and further in view of Lemann et al. (US 6346237 B2) ("Lemann").

Small and Simon, discussed above, fails to teach using cholesterol.

Lemann teaches cosmetic compositions comprising liquid crystal coloring agents having multiple color tones. See abstract, col. 1, line 3 – col. 4, line 52. The reference teaches that cyclomethicone grafted with cholesterol and biphenyl groups are particularly used. See col. 2, line 56 – col. 3, line 58. The reference teaches that these liquid crystal coloring agents may be used in 0.01- 60 % by weight. See col. 4, lines 46 – 51. In case of nail compositions, synthetic aqueous dispersion may be used in the amount of 10-80 % by weight. See col. 10, line 47 – col. 11, line 22.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the combined references by adding the liquid crystal coloring agents as motivated by Lemann because of the expectation of successfully producing thermochromic composition having multiple color tones.

Response to Arguments

Applicant's arguments with respect to claims 21-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 703-308-3951.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 703-305-1877. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1234.

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Gina C. Yu
Patent Examiner
March 21, 2003



SREENI PADMANABHAN
PRIMARY EXAMINER

3/24/03